

PROGESTERONE:

The ovaries secrete two classes of hormones: estrogens and progestins; estradiol is the most important of the estrogens, and progesterone is the dominant progestin.

In the nonpregnant female, essentially all of the estrogen compounds are secreted from the ovaries, with only minute amounts being synthesized in the adrenal cortex. Nearly all of the progesterone in nonpregnant females is produced in the corpus luteum; only small amounts are formed in the mature follicle during the day immediately before ovulation.

Functions of Progesterone:

The Most Important Function of Progesterone Is to Promote Secretory Changes in the Uterine Endometrium During the Latter Half of the Monthly Sexual Cycle.

This prepares the uterus for implantation of the zygote. Progesterone has a similar effect on the lining of the fallopian tubes, causing secretion of the fluid that provides nutrition for the fertilized ovum during its passage to the uterus. The hormone also reduces the excitability and motility of the uterine smooth muscle.

Progesterone Stimulates Development of the Lobules and Alveoli of the Breasts.

This effect causes the alveolar cells to enlarge, proliferate, and become secretory in nature, although the cells do not produce milk in response to progesterone.

Progesterone Causes an Upward Resetting of the Body Temperature Control System by About 0.5° F. This effect can be used to determine the time of ovulation because progesterone is not produced until the preovulatory LH surge, which takes place a few hours before ovulation.